

# Notice of Allowability

Application No.

10/075,244

Examiner

Marianne L. Padgett

Applicant(s)

NAKANO ET AL.

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/12/2006 & 7/12/2006.
2. ☒ The allowed claim(s) is/are 1-18 and 36-46.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/12/2006 has been entered.

2. The following is an examiner's statement of reasons for allowance: as noted in the advisory of 7/7/2006 applicants amendment has removed the previous 112 problems, and while stylistic changes suggested therein might improve ease readability, they are not considered to affect the meaning of the claims as presented, which are sufficiently clear.

It is agreed that the changes & additions made by the amendments removes the previously applied art rejections, as they do not manipulate and use the light reflected from the inside wall of the chambers in the same fashion as is now claimed, so as to analyze chamber contaminants on the wall, and separate scattered light from floating particles or the plasma as a whole, with the specifically claimed type of comparison database.

Search of the prior art for the new features provided the following references that are of interest to the state-of-the-art, but are not considered to provide sufficient limitations to read on the claims as now written. Kawada et al. (5536359) provides teachings on using light reflected from the chamber wall for determining cleaning up the apparatus, but indicates that all light measured is used in determination (column 6), and while in column 8 it indicates that records are kept each time the apparatus is cleaned, it does not appear that the same type of database is created as claimed by applicant's, nor is it used in the same way. Singh et al. (6994769 B2 & 2003/0005943 A1; figure 9 & [0048-56]) & Richardson et al. (7028696 B2) have teachings somewhat analogous to Kawada et al., without the database. Ito et al. (6346425 B1) is of interest for using light scattering for contaminant detection & their systematic collection for database, but they're scattered light measurements deal solely with particle determination,

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with no mention of scattering of light from walls. Otsubo et al. (6750977 B2) & Demos et al. (6626185 B2) have a different technique for measuring chamber wall contaminants, that excludes scattered light from particles by never measuring it in the first place, as they measure deposition on a window in the chamber in order to determine chamber wall contaminants. Kim et al. (2003/0185966 A1) is a further interest to the state-of-the-art for teaching of various community women and sent emissions in their use in endpoint detection, including cleaning processes, as exemplified on [0069] & table 1. Baier (2004/0173310 A1) & Tegeder (2004/0253824 A1), who are not prior art, are of interest for their teachings and proposed claims concerning measurement of particle contamination including reflected light from absorbing layers deposited on sidewalls.

Copending patent to applicants, Nakano et al. (6825437 B2) is also noted, however when it's claims mention scattered light from the walls of processing chamber, it notes that they are blocked by a spatial filter, thus the claims therein appear to be directed solely to foreign particle detection.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

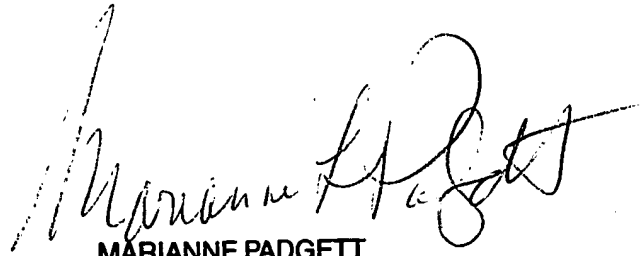
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available

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through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP/dictation software

10/1/2006



MARIANNE PADGETT  
PRIMARY EXAMINER